

Amendments to the Claims:

Claims 1-18 (Cancelled)

19. (New) A voice synthesis device, comprising:

a memory unit operable to store, in advance for each voice quality, voice element information regarding a plurality of voice elements having the plural voice qualities that are different from each other;

a voice information generating unit operable to acquire text data, and to generate, from plural pieces of the voice element information stored in said memory unit, synthetic voice information for each of the voice qualities, the synthetic voice information indicating synthetic voice having the voice quality which corresponds to a character that is included in the text data;

a designating unit operable to place fixed points at N^{th} dimensional coordinates for display where N is a natural number, the fixed points indicating voice quality of each piece of the voice element information stored in said memory unit, and to place plural set points at the coordinates for display on the basis of operation by a user so as to derive and designate a ratio at which changes each of plural pieces of the synthetic voice information which contributes to morphing along a time sequence on the basis of the placement of a moving point and the fixed points, the moving point continuously moving between the plural set points along the time sequence;

a morphing unit operable to generate intermediate synthetic voice information using each of the plural pieces of synthetic voice information generated by said voice information generating unit with the ratio of change along the time sequence designated by said designating unit, the intermediate synthetic voice information indicating synthetic voice having intermediate voice quality, between the plural voice qualities, which corresponds to a character that is included in the text data; and

a voice outputting unit operable to convert, to synthetic voice having the intermediate voice quality, the intermediate synthetic voice information generated by said morphing unit, and to output the resulting synthetic voice,

wherein said voice information generating unit is operable to generate each of the plural pieces of synthetic voice information as a sequence of each of plural characteristic parameters, and

said morphing unit is operable to generate the intermediate synthetic voice information by calculating an intermediate value of the plural characteristic parameters to which the plural pieces of synthetic voice information respectively correspond.

20. **(New)** The voice synthesis device according to Claim 19,

wherein said morphing unit is operable to change the ratio of contribution of the plural pieces of synthetic voice information to the intermediate synthetic voice information so that the voice quality of the synthetic voice outputted from said voice outputting unit continuously changes during the output of the synthetic voice.

21. **(New)** The voice synthesis device according to Claim 19,

wherein said memory unit is operable to store, for each of the plural pieces of voice element information, characteristic information which indicates a standard in each of the voice element that is indicated by each piece of the voice element information in such a manner that the characteristic information is included in each of the plural pieces of voice element information,

said voice information generating unit is operable to generate the plural pieces of synthetic voice information in such a manner that the characteristic information is included in each of the plural pieces of synthetic voice information, and

said morphing unit is operable to match the plural pieces of synthetic voice information using the standard that is indicated by the characteristic information which is included in each of

the plural pieces of synthetic voice information, and to generate the intermediate synthetic voice information.

22. (New) The voice synthesis device according to Claim 21,
wherein the standard is a point at which an acoustic characteristic of each of the voice element that is indicated by each of the plural pieces of voice element information changes.
23. (New) The voice synthesis device according to Claim 22,
wherein the point at which the acoustic characteristic changes is a state transition point on the most likely path in which each of the voice element indicated by each of the plural pieces of the voice element information is represented by a hidden Markov model (HMM), and
said morphing unit is operable to match the plural pieces of synthetic voice information along the time axis using the state transition point, and to generate the intermediate synthetic voice information.
24. (New) The voice synthesis device according to Claim 19, further comprising:
an image storing unit operable to store, in advance for each of the voice quality, image information indicating an image which corresponds to each of the voice quality;
an image morphing unit operable to generate, from a plural pieces of the image information, intermediate image information indicating an image which corresponds to each of the voice quality of the intermediate synthetic sound information; and
a display unit operable to acquire the intermediate image information generated by said image morphing unit, and to display the image indicated by the intermediate image information in synchronization with the synthetic voice outputted from said voice outputting unit.
25. (New) The voice synthesis device according to Claim 24,

wherein the plural pieces of image information respectively indicate face images which correspond to each of the voice quality.

26. (New) A voice synthesis method for generating and outputting synthetic voice using memory which stores, in advance for each voice quality, voice element information regarding a plurality of voice elements having the plural voice qualities that are different from each other, said voice synthesis method comprising:

a text acquiring step of acquiring text data;

a voice information generating step of generating, from plural pieces of the voice element information stored in the memory, synthetic voice information for each of the voice qualities, the synthetic voice information indicating synthetic voice having the voice quality which corresponds to a character that is included in the text data;

a designating step of placing fixed points at N^{th} dimensional coordinates for display where N is a natural number, the fixed points indicating voice quality of each piece of the voice element information stored in the memory, and placing plural set points at the coordinates for display on the basis of operation by a user so as to derive and designate a ratio at which changes each of plural pieces of the synthetic voice information which contributes to morphing along a time sequence on the basis of the placement of a moving point and the fixed points, the moving point continuously moving between the plural set points along the time sequence;

a morphing step of generating intermediate synthetic voice information using each of the plural pieces of synthetic voice information generated by said voice information generating step with the ratio of change along the time sequence designated by said designating step, the intermediate synthetic voice information indicating synthetic voice having intermediate voice quality, between the plural voice qualities, which corresponds to a character that is included in the text data; and

a voice outputting step of converting, to synthetic voice having the intermediate voice quality, the intermediate synthetic voice information generated by said morphing step, and outputting the resulting synthetic voice,

wherein each of the plural pieces of synthetic voice information is generated as a sequence of each of plural characteristic parameters in said voice information generating step, and

the intermediate synthetic voice information is generated by calculating an intermediate value of each of the plural characteristic parameters which corresponds to the plural pieces of synthetic voice information in said morphing step.

27. (New) A program for generating and outputting synthetic voice using memory which stores, in advance for each voice quality, voice element information regarding a plurality of voice elements having the plural voice qualities that are different from each other, said program causing a computer to execute:

a text acquiring step of acquiring text data;

a voice information generating step of generating, from plural pieces of the voice element information stored in the memory, synthetic voice information for each of the voice qualities, the synthetic voice information indicating synthetic voice having the voice quality which corresponds to a character that is included in the text data;

a designating step of placing fixed points at N^{th} dimensional coordinates for display where N is a natural number, the fixed points indicating voice quality of each piece of the voice element information stored in the memory, and placing plural set points at the coordinates for display on the basis of operation by a user so as to derive and designate a ratio at which changes each of plural pieces of the synthetic voice information which contributes to morphing along a time sequence on the basis of the placement of a moving point and the fixed points, the moving point continuously moving between the plural set points along the time sequence;

a morphing step of generating intermediate synthetic voice information using each of the plural pieces of synthetic voice information generated by the voice information generating step with the ratio of change along the time sequence designated by the designating step, the intermediate synthetic voice information indicating synthetic voice having intermediate voice quality, between the plural voice qualities, which corresponds to a character that is included in the text data; and

a voice outputting step of converting, to synthetic voice having the intermediate voice quality, the intermediate synthetic voice information generated by the morphing step, and outputting the resulting synthetic voice,

wherein each of the plural pieces of synthetic voice information is generated as a sequence of each of plural characteristic parameters in the voice information generating step, and

the intermediate synthetic voice information is generated by calculating an intermediate value of each of the plural characteristic parameters which corresponds to the plural pieces of synthetic voice information in the morphing step.